

## Practical-2

**AIM1:** You are developing a program that classifies a given amount of money into smaller monetary units. The program lets the user enter an amount representing a total in dollars and cents, and then outputs a report listing the monetary equivalent in dollars, quarters, dimes, nickels, and pennies, as shown in the sample run.

### Code:

```
amount = float(input("Enter an amount: "))

print("Your amount {} consists of".format(amount))

dollars = int(amount)

remaining_cents = int(round(amount * 100)) % 100

quarters = remaining_cents // 25

dimes = remaining_cents % 25 // 10

nickels = remaining_cents % 25 % 10 // 5

pennies = remaining_cents % 25 % 10 % 5

print("Dollars:", dollars)

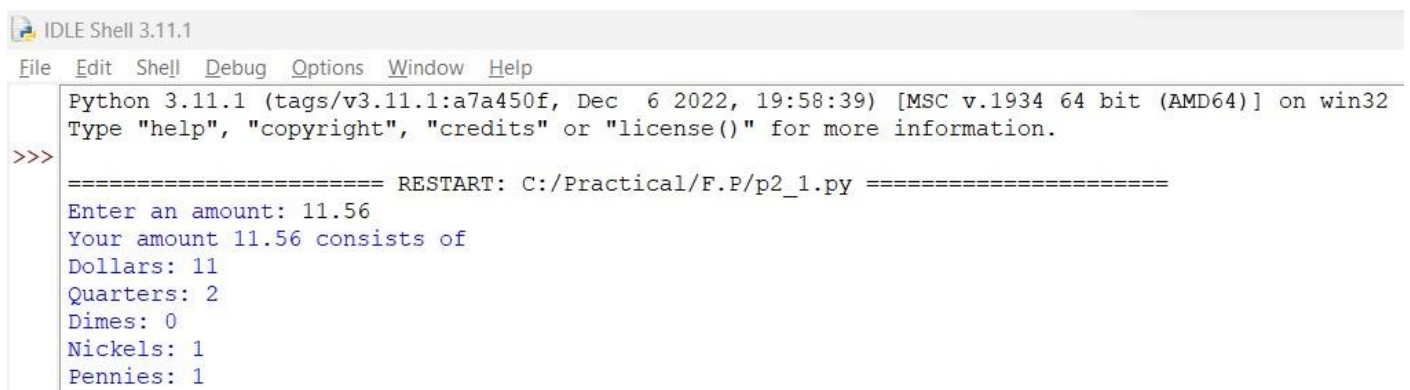
print("Quarters:", quarters)

print("Dimes:", dimes)

print("Nickels:", nickels)

print("Pennies:", pennies)
```

### Output:



```
IDLE Shell 3.11.1
File Edit Shell Debug Options Window Help
Python 3.11.1 (tags/v3.11.1:a7a450f, Dec 6 2022, 19:58:39) [MSC v.1934 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:/Practical/F.P/p2_1.py =====
Enter an amount: 11.56
Your amount 11.56 consists of
Dollars: 11
Quarters: 2
Dimes: 0
Nickels: 1
Pennies: 1
```

**AIM2:** Suppose you want to develop a program to play a lottery.

**Code:**

```
import random

lottery = random.randint(10, 99)

print("Lottery Number: ", lottery)

a = int(input('Enter a two-digit number: '))

b_str = str(lottery)

a_str = str(a)

if b_str == a_str:

    print('Congratulations,You won $10,000!')

elif b_str[0] == a_str[1] and b_str[1] == a_str[0]:

    print('Congratulations,You won $5,000!')

elif b_str[0] in a_str or b_str[1] in a_str:

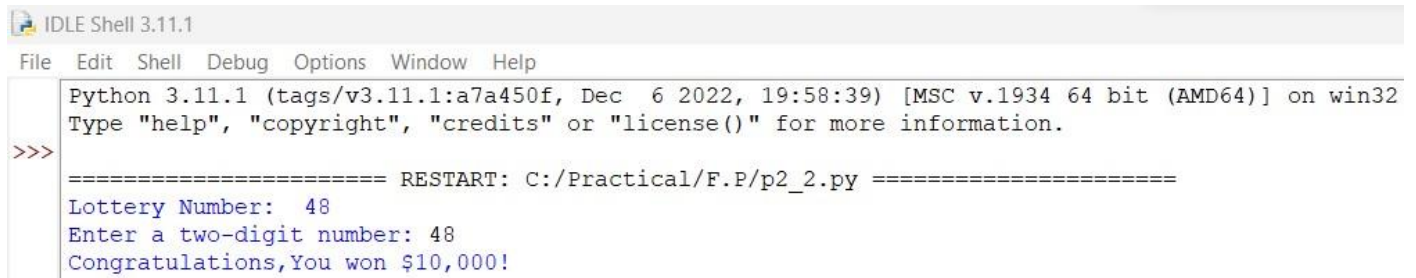
    print('Congratulations,You won $2,000!')

else:

    print('Sorry, you did not win the lottery this time.')
```

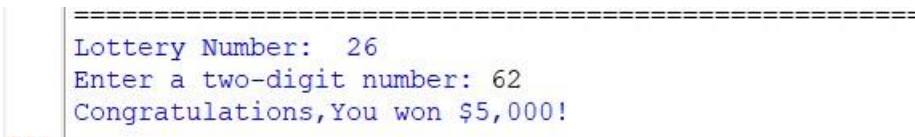
**Output:**

A).



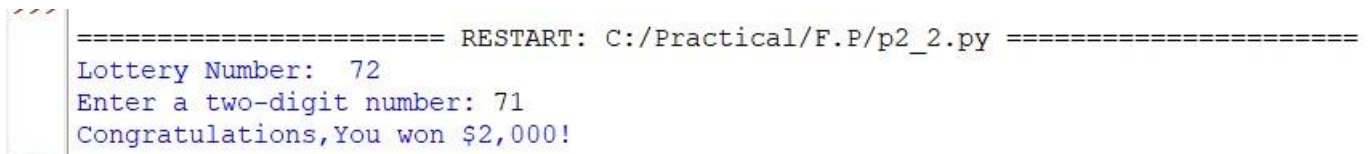
```
IDLE Shell 3.11.1
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Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:/Practical/F.P/p2_2.py =====
Lottery Number: 48
Enter a two-digit number: 48
Congratulations,You won $10,000!
```

B).



```
=====
Lottery Number: 26
Enter a two-digit number: 62
Congratulations,You won $5,000!
```

C).



```
===== RESTART: C:/Practical/F.P/p2_2.py =====
Lottery Number: 72
Enter a two-digit number: 71
Congratulations,You won $2,000!
```

**AIM3:** Guessing Numbers: The problem is to guess what number a computer has in mind.

**Code:**

```
import random

number = random.randint(0, 100)

guess = int(input("Guess a magic number between 0 and 100: "))

while guess != number:

    if guess < number:

        print("Too low")

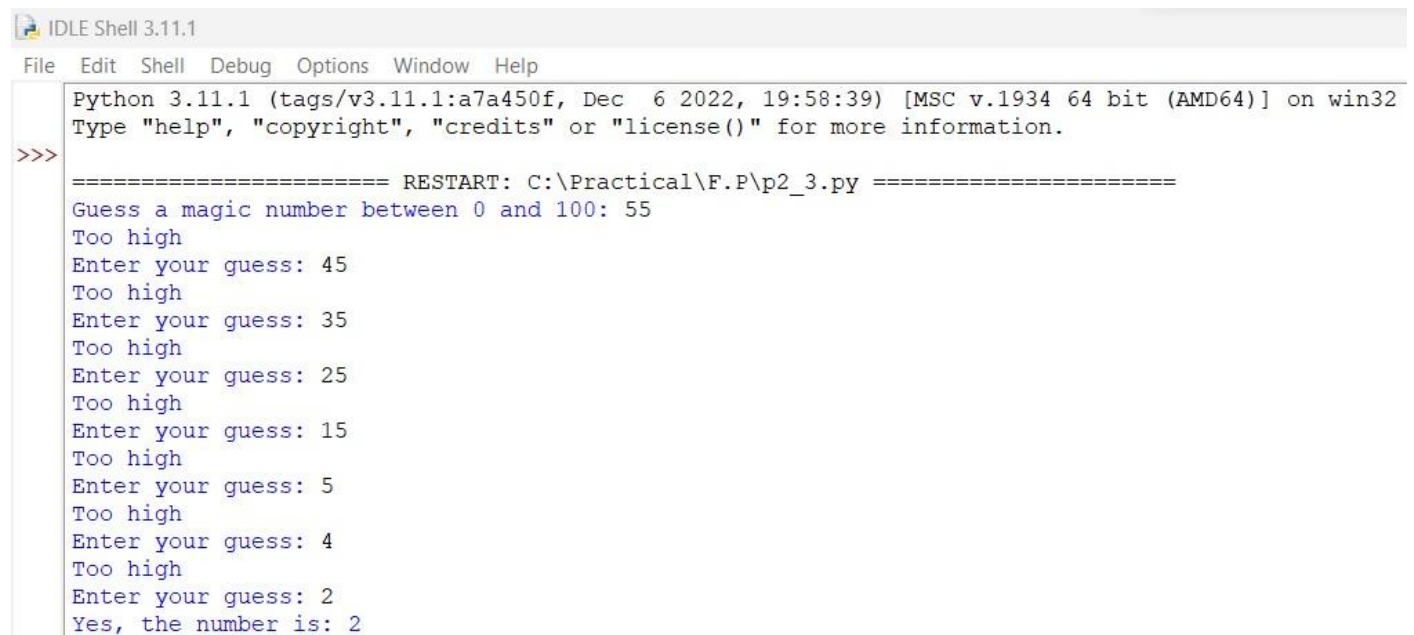
    else:

        print("Too high")

    guess = int(input("Enter your guess: "))

print("Yes, the number is:", number)
```

**Output:**



```
IDLE Shell 3.11.1
File Edit Shell Debug Options Window Help
Python 3.11.1 (tags/v3.11.1:a7a450f, Dec 6 2022, 19:58:39) [MSC v.1934 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Practical\F.P\p2_3.py =====
Guess a magic number between 0 and 100: 55
Too high
Enter your guess: 45
Too high
Enter your guess: 35
Too high
Enter your guess: 25
Too high
Enter your guess: 15
Too high
Enter your guess: 5
Too high
Enter your guess: 4
Too high
Enter your guess: 2
Yes, the number is: 2
```